

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

CARDIACSENSE LTD, Plaintiff, vs. GARMIN INTERNATIONAL, INC., Defendant.	2-24-CV-11368-TGB-KGA HON. TERRENCE G. BERG ORDER GRANTING GARMIN INTERNATIONAL, INC.'S MOTION TO DISMISS WITHOUT PREJUDICE (ECF NO. 5)
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Plaintiff Cardiacsense LTD (“Cardiacsense”) sued Garmin International, Inc. (“Garmin”) for infringing upon U.S. Patent 7,980,998 (“the ‘998 patent”). ECF No. 1. Garmin moved to dismiss Cardiacsense’s lawsuit on the grounds that the claims of the ‘998 patent are not patent eligible pursuant to 35 U.S.C. § 101. ECF No. 5.

After carefully reviewing the claims, the record, and the law, and considering the arguments of the parties, the Court concludes that as alleged in Cardiacsense’s Complaint, the ‘998 patent appears to not be patent eligible. Consequently, Garmin’s Motion to Dismiss will be **GRANTED**, but such dismissal will be **WITHOUT PREJUDICE**.

I. BACKGROUND

“In 2006, Eldad Shemesh and Liat Shemesh-Granot filed a patent application for their invention which provides a training device for measuring a training activity. [In 2009, t]heir inventive device was

granted United States Patent 7,980,998 (“the ‘998 patent”).” ECF No. 1, PageID.2.

Claim 1 of the ‘998 patent is as follows:

A personal device for measuring a training activity of a trainee having a body part which moves and changes its location and orientation, during said training activity, this movement at least partially defining said training activity, said device comprising:

(a) a sensing unit adapted to repeatedly measure, during said training activity, parameters associated with the movement of said body part and characterizing the location and orientation of said body part relative to its initial location and orientation, and wherein said sensing unit comprising at least accelerometer means, a compass and optionally gyroscope means, said accelerometer means being adapted to measure linear acceleration of said body part along three axes, said gyroscope means being adapted to measure angular acceleration of said body part around said three axes, and said parameters being at least linear and angular acceleration values;

(b) means for attaching the sensing unit to said body part; and

(c) a processor adapted to receive from the sensing unit said parameters, and to calculate based thereon, data indicative of said training activity, said data including at least the location and orientation of said body part for [each] of the measurements.

ECF No. 1-1, PageID.35.

The '998 patent recites other claims, all of which are variations on the idea expressed in Claim 1. Claim 2 measures the trainee's movement while they swim. *Id.* Claim 3 does the same, while capturing specific data related to swimming, like hand or leg height. *Id.* Claim 4 tracks the user's heart rate. *Id.* Claim 5 presents data to the user while they train. *Id.* Claim 6 does so with two screens, not one. *Id.* Claim 7 is a training device which communicates training instructions according to predetermined rules. *Id.* The '998 patent specification gave the following example of a "predetermined rule:" "if the height of the right hand stroke is greater than X mm—display to the swimmer instruction to lower his/her right hand strokes." *Id.* at PageID.31. Claim 8 includes an additional sensing unit. *Id.* at PageID.36. Claim 9 has a "flexible platform" for attaching sensors to the measured body part. *Id.* Claim 10 transmits vibratory pulses to the trainee according to predetermined rules. *Id.* Claim 11 uses a wireless headphone to communicate information. *Id.* Claim 12 uses a wireless computer. *Id.* Claim 13 uses wireless technology to transfer information to a presentation unit seen by the trainee. *Id.* Claim 14 and 15 show the data from multiple trainees to a trainer. And Claim 16 allows the trainer to communicate to multiple trainees. *Id.*

The '998 patent provided two examples of prior art:

U.S. Pat. No. 5,685,722 is directed to goggles incorporating an electronic timer and display for displaying the times of a Swimmer with a display accessible to a Swimmer connected to the goggles.

An accelerometer is used to determine a Swimmer's movements with an electronic circuit for processing the information from the accelerometer to determine a Swimmer's movements and time between movements.

U.S. Pat. No. 5,600,730 is directed to a swimming training device that may be part of an overall training system. The device is deployable releasably in a Swimming cap and can receive electromagnetic wave signals. The device can then convert the signals into electrical charges which are then translated into audible sound. The system includes the cap with the receiving device and a transmitting source. The transmitting source allows the broadcasting of verbal instructions, as well as music and timing signals.

ECF No. 1-1, PageID.27.

On May 22, 2024, Cardiacsense filed a Complaint against Garmin, alleging that Garmin manufactures and sells training devices, or "smart watches," which infringe upon the '998 patent: like the '998 patent, they use sensing units and processors to measure training activity and communicate data to the user. *See* ECF No. 1, PageID.5-11 (comparing a Garmin smart watch to the '998 patent). On August 29, 2024, Garmin filed a Motion to Dismiss. ECF No. 5. On September 19, 2024, Cardiacsense filed a Response. ECF No. 6. On September 24, 2024, Garmin filed a Reply. ECF No. 7.

II. STANDARD

Garmin alleges that the '998 patent is not patent eligible because it is directed at abstract ideas, which are patent-ineligible, and because the

‘998 patent does not recite elements sufficient to transform it into a patent-eligible application. ECF No. 5, PageID.71-83.

Under Section 101 of the Patent Act, abstract ideas are not patentable. 35 U.S.C. § 101; *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 573 U.S. 208, 216 (2014) (“*Alice*”). This rule prevents actors from monopolizing “the basic tools of scientific and technological work.” *Alice*, 574 U.S. at 216 (*quoting Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)).

Courts enforce this rule with the so-called “*Alice* framework.” *iLife Technologies, Inc. v. Nintendo of Am., Inc.*, 839 Fed. App’x 534, 536 (Fed. Cir. 2021) (“*iLife*”). The *Alice* framework has two steps: first, the reviewing court determines “whether the claims at issue are directed to a patent-ineligible concept, such as an abstract idea.” *iLife*, 839 Fed. App’x at 536 (internal quotation marks removed, *quoting Alice*, 573 U.S. at 217). If the reviewing court finds this to be the case, it then determines whether the claim “contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.” *iLife*, 839 Fed. App’x at 536 (internal quotation marks removed, *quoting Alice*, 573 U.S. at 221). But if the claim elements “involve well-understood, routine, and conventional activity previously engaged in by researchers in the field, they do not constitute an inventive concept.” *iLife*, 839 Fed. App’x at 536 (internal quotation marks, formatting, and citation removed,

quoting *Mayo Collaborative Services. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

Courts apply the *Alice* framework at the motion to dismiss stage. *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1360 (Fed. Cir. 2017). To survive a motion to dismiss, a complaint need only contain “enough facts to state a claim for relief that is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007).

III. ANALYSIS

A. *Alice* Step One

Garmin argues that the ‘998 patent is directed at an abstract idea because it measures movement using generic methods which do not advance the technology for measuring movement. ECF No. 5, PageID.75-79. Cardiacsense responds that the ‘998 patent is not directed at an abstract idea because it is a specific, improved form of measuring movement. ECF No. 6, PageID.102. For the reasons that follow, the Court finds Garmin’s arguments persuasive. Under Step One of the *Alice* framework, the ‘998 patent is directed at an abstract idea.

1. **Measuring Movement, Without More, is an Abstract Idea**

Garmin directs the Court’s attention to *iLife*, 839 Fed. App’x at 535-38. In that unpublished opinion, a Federal Circuit panel applied the *Alice* framework to a patent claiming “a motion detection system that evaluates relative movement of a body based on both dynamic

acceleration (*e.g.*, vibration, body movement) and static acceleration (*i.e.*, the position of a body relative to earth).” *Id.* at 535. As Garmin points out in their Motion, the patent in *iLife* resembles Cardiacsense’s ‘998 patent. ECF No. 5, PageID.74-76.

In *iLife*, the relevant claim was:

A system within a communications device **capable of evaluating movement of a body** relative to an environment, said system comprising:

a sensor, associable with said body, that senses dynamic and static accelerative phenomena of said body, and

a processor, associated with said sensor, that processes said sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is within environmental tolerance wherein said processor generates tolerance indicia in response to said determination; and

wherein **said communication device transmits said tolerance indicia.**

839 Fed. App’x at 535-36 (emphasis added).

Compare that with Claim 1 of the ‘998 patent:

A personal device for measuring a training activity of a trainee having a **body part which moves and changes its location and orientation, during said training activity**, this movement at least partially defining said training activity, said device comprising:

- (a) **a sensing unit adapted to repeatedly measure, during said training activity, parameters associated with the movement of said body part and characterizing the location and orientation of said body part relative to its initial location and orientation**, and wherein said sensing unit comprising at least accelerometer means, a compass and optionally gyroscope means, **said accelerometer means being adapted to measure linear acceleration of said body part along three axes**, said gyroscope means being adapted to measure angular acceleration of said body part around said three axes, and said parameters being at least linear and angular acceleration values;
- (b) **means for attaching the sensing unit to said body part**; and
- (c) **a processor adapted to receive from the sensing unit said parameters**, and to calculate based thereon, data indicative of said training activity, said data including at least the location and orientation of said body part for [each] of the measurements.

ECF No. 1-1, PageID.35 (emphasis added).

Both patents cover a device which uses a sensor to measure the movement of a body, processes the readout from the sensor to come to conclusions about the movement of that body, and then communicates that data elsewhere. *See iLife*, 839 Fed. App'x at 535-36; ECF No. 1-1, PageID.35.

The Federal Circuit panel in *iLife* determined that the patent in question was directed to an abstract idea for two reasons: first, it noted

that the Federal Circuit has “routinely held that claims directed to gathering and processing data are directed to an abstract idea.” 839 Fed. App’x at 536-37 (*citing Elec Power. Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *also citing SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (for the principle that a claim directed to “selecting certain information, analyzing it using mathematical techniques, and reporting or displaying the results of the analysis” was directed to an abstract idea)).

Second, the *iLife* panel noted that while claims which focus on a specific means or method of improving technology are not directed to an abstract idea, the claims in question were not directed to such improvements. 839 Fed. App’x at 537. The patented device did not make the monitoring technology more effective, or improve the calculation of position or orientation of an object. *Id.*

Here, the ‘998 patent and all of its claims are directed to gathering and processing data. Claim 1 measures a training activity of a person who wears sensors which measure the movements of that person and communicate data about their movements. ECF No. 1-1, PageID.35. That is gathering and processing data. Claim 2 does so in the context of swimming. *Id.* Claim 3 gathers and processes specific data related to swimming, like hand or leg height for each stroke. *Id.* Claim 4 gathers and processes the heart rate of the person wearing the device – this is gathering and processing data. *See id.* Claim 5 describes the same device,

but with a presentation unit to show the trainee certain data: this is “selecting certain information, analyzing it using mathematical techniques, **and reporting or displaying the results of the analysis**,” which is directed to an abstract idea. ECF No. 1-1, PageID.35; *see SAP Am., Inc.*, 898 F.3d at 1167 (emphasis added). Claim 6 has another screen, and does the same thing as Claim 5. *See id.*

Claim 7 is the device, but where the processor “is further adapted to provide said training instructions according to predetermined rules.” ECF No. 1-1, PageID.35. “Rules” are directed to abstract ideas where “the claimed computer-automated process and the prior method were carried out in the same way.” *Fairwarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1094 (Fed. Cir. 2016) (*quoting McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016)). Where claimed rules “merely implement an old practice in a new environment,” and ask “the same questions . . . that humans in analogous situations . . . have asked for decades, if not centuries,” the claims are directed towards abstract ideas. *Fairwarning IP, LLC*, 839 F.3d at 1094-95.

Here, the example given of a “predetermined rule” in the specification is: “if the height of the right hand stroke is greater than X mm—display to the swimmer instruction to lower his/her right hand strokes.” ECF No. 1-1, PageID.31. This is what a swimming coach would have said to their trainee before the computer-automated process was used: the device merely implements an old practice in a new

environment, and makes the same instructions that have been given for centuries to swimmers. The addition of predetermined rules were not “directed to a specific improvement in the way computers operate,” but rather were “an abstract idea implemented on a computer.” *Fairwarning IP, LLC*, 839 F.3d at 1095 (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336-37 (Fed. Cir. 2016)).

Claim 8 is effectively the same as Claim 1, but includes an additional sensing unit. ECF No. 1-1, PageID.36. But the additional sensor would still be “directed to gathering and processing data,” and so would be directed to an abstract idea. *See iLife*, 839 Fed. App’x at 536-37. Claim 9 requires a “flexible platform” for attaching the sensing unit to the body part whose movement is being measured. ECF No. 1-1, PageID.36. But incorporating a flexible platform into the device would still accomplish the abstract ideas of gathering and processing data. *See iLife*, 839 Fed. App’x at 537. Claim 10 transmits vibratory pulses to the trainee according to predetermined rules. ECF No. 1-1, PageID.36. But this is anticipated by the swim cap in the prior art: it did not improve on the abstract idea of gathering, processing, and communicating data. *See id.* at PageID.27. Moreover, “collecting and analyzing information to . . . notify a user [of a relevant occurrence]” is directed to an abstract idea, unless it involves the use of newly-created, inventive rules. *Fairwarning IP, LLC*, 839 F.3d at 1089-94. Transmitting vibratory pulses is directed to abstract notification.

Claim 11 is the same device with a wireless earphone. ECF No. 1-1, PageID.36. But this is still directed to the abstract ideas of collecting, processing, and transmitting information. *See iLife*, 839 Fed. App'x at 537. Claim 12 is the same device with a wireless computer. ECF No. 1-1, PageID.36. Claim 13 is the same device, where a user can wirelessly transfer instructions to a presentation unit seen by the trainee. *Id.* Claim 14 and 15 are the same device, where a monitor shows a trainer the real-time data from multiple trainees. *Id.* Claim 16 allows the trainer to transfer instructions to multiple trainees. *Id.* Again, these claims are all methods of collecting, processing, and transmitting information, which do not provide a method for improving the technology used. *See iLife*, 839 Fed. App'x at 537. As such, they are directed to abstract ideas.

2. Distinguishing *Thales* and *Contour IP*

Cardiacsense relies on two cases to argue that the '998 patent is not directed to an abstract idea under Step One of the *Alice* framework: *Thales Visionx Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017) ("*Thales*") and *Contour IP Holding LLC v. GoPro Inc.*, 113 F.4th 1373 (Fed. Cir. 2024) ("*Contour IP*"). But neither case is sufficient to show that the '998 patent is not directed to an abstract idea.

Cardiacsense points to the fact that in *Thales*, the Federal Circuit found that a tracking system was not directed to an abstract idea because "[t]he claims specify a particular configuration of inertial sensors and a particular method of using the raw data from the sensors in order to more

accurately calculate the position and orientation of an object” 850 F.3d at 1349. The Federal Circuit held that the claims were not directed towards the abstract idea of tracking movement because they were “directed to systems and methods that use inertial sensors in a non-conventional manner to reduce errors in measuring the relative position and orientation of a moving object” *Id.* at 1348-49.

Cardiacsense argues that this is what the ‘998 patent does, too. ECF No. 6, PageID.99-100. Cardiacsense argues that the claims of the ‘998 patent track data which “is not conventional data, but instead highly specific training data measured from the activity of the trainee.” *Id.* at PageID.100. This data includes things like “instantaneous speed during [swimming] laps, hand or leg lifting height for each stroke” *Id.* But as Garmin points out in their Reply, ECF No. 7, PageID.111-13, the *iLife* panel distinguished the claim at issue from the claim in *Thales*:

In contrast, claim 1 of the ‘796 patent is not focused on a specific means or method to improve motion sensor systems, nor is it directed to a specific physical configuration of sensors. It merely recites a motion sensor system that evaluates movement of a body using static and dynamic acceleration information.

iLife, 839 Fed. App’x at 537.

Moreover, claims are directed to abstract ideas when they “are not directed to a specific improvement in the way computers operate,” but rather are “an abstract idea implemented on a computer.” *Fairwarning*

IP, LLC, 839 F.3d at 1095 (quoting *Enfish, LLC*, 822 F.3d at 1336-37). Here, nothing suggests that the ‘998 patent is focused on a specific means or method to improve motion sensor systems, or that the ‘998 patent is directed to a specific improvement in the way that motion sensors operate, or that the ‘998 patent uses motion sensors in a new, particularly useful manner. Rather, the ‘998 patent uses motion sensors to track training activities and imitate the feedback that a trainer would have provided a trainee by observing them and commenting on their performance. The ‘998 patent’s claims largely recite the abstract ideas of recording, observing, and communicating feedback about training, which ideas are implemented on a computer. It does not save the ‘998 patent that it uses “highly specific training data measured from the activity of the trainee,” where nothing indicates that this data is generated by means which improve measurement techniques beyond their being implemented with a computer. It is the same training data that would be used by swimming coaches without the use of the device in the ‘998 patent. *Thales* is inapplicable: there, the claims actually improved on the existing technology by using new methods to track movement. Here, the ‘998 patent tracks a different kind of movement than other devices, but with the same means that those other devices would have used. It is still directed towards the abstract idea of collecting, processing, and transmitting information. See *iLife*, 839 Fed. App’x at 537.

Cardiacsense also points to *Contour IP*, 113 F.4th at 1380, for the principle that using known or conventional components “does not necessarily mean that the claim is directed to an abstract idea at step one [of the *Alice* framework].” ECF No. 6, PageID.103-04. This is correct, but the ‘998 patent is directed at an abstract idea not just because it uses known or conventional components, but because it accomplishes the same tasks that a swimming or other coach would have accomplished without making improvements to the technology used. If Cardiacsense had, for example, developed a sensor which used newly-invented technology to calculate the force that a swimmer exerts on the water, or, for example, used existing sensors in an unconventional, unanticipated way to calculate that force, then the ‘998 patent would not be directed to an abstract idea. But since the ‘998 patent does not appear to improve on the existing technology, and since it only accomplishes training methods which already exist (tracking hand height, speed) using conventional technology in a conventional way, the ‘998 patent is directed to an abstract idea: it is not directed to a specific improvement in the way that sensors operate, but rather is an abstract idea implemented using sensors. See *Fairwarning IP, LLC*, 839 F.3d at 1095 (quoting *Enfish, LLC*, 822 F.3d at 1336-37). Therefore, at Step One of the *Alice* framework, the ‘998 patent is directed to an abstract idea.

B. *Alice* Step Two

At Step Two of the *Alice* framework, the court determines whether the claim “contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.” *iLife*, 839 Fed. App’x at 536 (internal quotation marks removed, *quoting Alice*, 573 U.S. at 221). But if the claim elements “involve well-understood, routine, and conventional activity previously engaged in by researchers in the field, they do not constitute an inventive concept.” *iLife*, 839 Fed. App’x at 536 (internal quotation marks, formatting, and citation removed, *quoting Mayo Collaborative Services*, 566 U.S. at 73; *see also iLife*, 839 F.3d App’x at 538 (*quoting BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290-91 (Fed. Cir. 2018) (“If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.”)).

The Court has found that the ‘998 patent’s claims are directed to the abstract ideas of measuring and processing movement. Cardiacsense argues that the ‘998 patent should survive Step Two of the *Alice* framework because by using the devices described in the patent, “instructors and trainees can receive improved sports instruction that was not previously available through conventional means the ‘998 invention allows real-time data and feedback that includes previously unmeasurable information such as instantaneous speed during the laps,

hand or leg lifting height for each stroke, distance traveled for each stroke, [and] comparative results to other participants.” ECF No. 6, PageID.107. Cardiacesense argues that the ‘998 patent uses “the sensing unit, processor, and presentation unit in a new and unconventional way to solve the problems of providing accurate real-time feedback to a trainee during training.” *Id.*

The Court has reviewed the elements of the claims both individually and as an ordered combination, and still it appears that they fail to recite an inventive concept. *iLife*, 839 Fed. App’x at 537. The ‘998 patent accomplishes its goals of providing real-time training data using “conventional and well-understood techniques.” *iLife*, 839 F.3d App’x at 538 (*quoting BSG Tech LLC*, 899 F.3d at 1290-91). Nothing suggests that the ‘998 patent’s sensors, accelerometers, gyroscopes, processors, displays, vibrating pulses, and attachments were not conventional and well-understood at the time the patent was awarded. The prior art already included the use of an accelerometer in swim goggles, and a swim cap which could broadcast real-time instructions. ECF No. 1-1, PageID.27.

Cardiacsense argues that “Garmin cites no evidence that providing real-time feedback to a trainee through the use of repeated measurement and processing of data is well-understood, routine, and conventional.” ECF No. 6, PageID.107-08. True, but the idea of providing real-time feedback to a trainee through observing their movements is an abstract

idea, and Cardiacsense's '998 patent accomplishes that abstract idea through well-understood and conventional techniques: using sensors and processors to measure movement, and using computers and display systems to transmit information to trainee and trainer. As such, the '998 patent does not contain an inventive concept under Step Two of the *Alice* framework. *See iLife*, 839 F.3d App'x at 538 (*quoting BSG Tech LLC*, 899 F.3d at 1290-91). Under the *Alice* framework, the '998 patent as alleged in the Complaint is not patent-eligible under 35 U.S.C. § 101.

IV. CONCLUSION

Garmin moved for the dismissal of Cardiacsense's Complaint, and Garmin's motion is **GRANTED**. However, insofar as Garmin moved to dismiss Cardiacsense's Complaint without leave to refile, ECF No. 7, PageID.117, that aspect of Garmin's motion will be denied, and the Complaint will be dismissed **WITHOUT PREJUDICE**. "When a motion to dismiss is granted in a case . . . the usual practice is to grant plaintiffs leave to amend the complaint. Generally, leave to amend is 'freely given when justice so requires.'" *PR Diamonds, Inc. v. Chandler*, 364 F.3d 671, 698 (6th Cir. 2004) (*quoting Morse v. McWhorter*, 290 F.3d 795, 799 (6th Cir. 2002), *and* Fed. R. Civ. P. 15(a)). Here, justice so requires: given the technical issues involved, the parties and Court will be benefited by an amended complaint. If filed, the amended complaint should address the issues the Court found determinative in granting Garmin's Motion to Dismiss, and the issues which the court in *CardiacSense Ltd. v. Coros*

Wearables, Inc., No. 2:24-cv-11011-MCS-AS (C.D. Cal. Mar. 10, 2025)(Scarsi, J.) found persuasive in denying Coros Wearables, Inc.'s Motion to Dismiss.

SO ORDERED.

Dated: March 31, 2025

/s/Terrence G. Berg

HON. TERRENCE G. BERG
UNITED STATES DISTRICT JUDGE